

# Federal Aviation Administration Average Weight Survey

Process, Survey and Results

# Strategy

---

- **Gather Information**
- **Analyze and Evaluate**
- **Identify Deficiencies**
- **Formulate Corrective Action**
- **Implement Corrective Action**

# Gathering Information

---

- **FAA Notice 8400.40 required operators to validate their current approved Weight & Balance Control Program.**

**FOR MORE INFO...**

**Notice 8400.40 dated 1/24/03**

# Method of Survey

---

- 1. All operators of 10-19 passenger seat aircraft conducting scheduled 121 operations and using average weight programs**
- 2. Conducted over 3 consecutive days**
- 3. Survey conducted at 30% of the carriers stations, with 15% of the flights sampled.**

# Obtaining weights

---

## 1. Passengers weights

- Asked weight, or
- Actual weight

## 2. Carry-on and Checked Baggage

- Actual weight

# Analyze and Evaluate

<i>Air Carrier</i>	<i>Average Adult Wt. (lbs.)</i>	<i>Sample Size</i>	<i>Average Carry-On Wt. (lbs.)</i>	<i>Sample Size.</i>	<i>Average Checked Bag Wt. (lbs)</i>	<i>Sample Size</i>
A	200.00	3,018	20.00	1538	30	2510
B	177.86	148	*	*	24	211
C	192.60	326	11.03	297	29.88	485
D	184.00	66	9.00	30	24.00	120
E	192.00	739	15.80	488	25.50	828
F	193.60	106	13.90	90	34.00	171
G	164.00	16	5	86	27.29	7
H	193.57	106	13.93	90	33.98	171
I	199.10	132	16.90	108	24.70	125
♦J	165.00	179	*	*	*	*
K	196.00	365	7	222	*	*
L	190.00	216	7.8	215	24.80	266
M	189.47	77	14.45	59.00	25.54	64
N	191.18	229	18.26	111	29.24	186
O	187.90	396	14.70	485	30.80	378

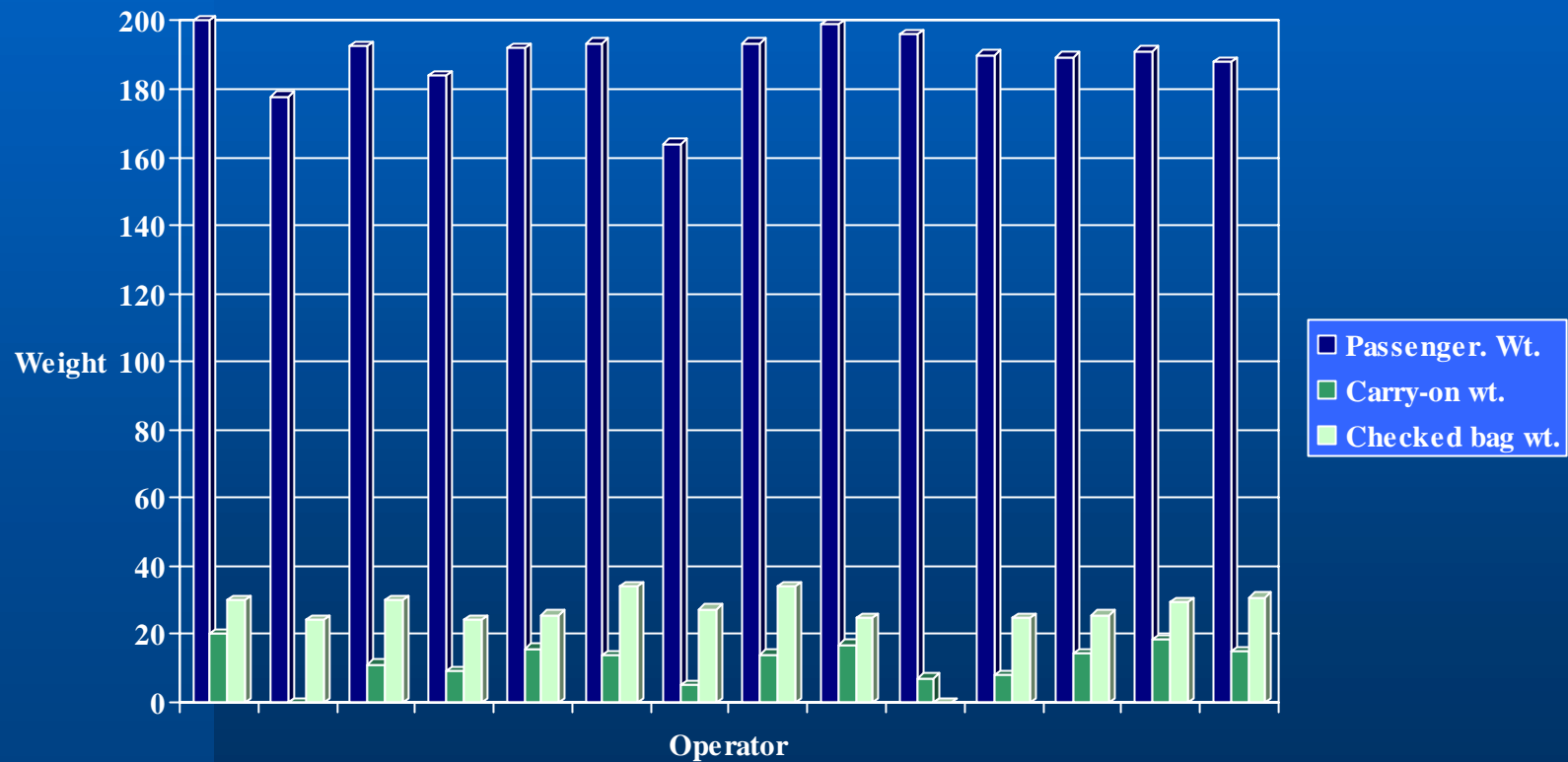
\* Carrier currently uses actual weights in this category and did not report

♦ Carrier did not properly conduct survey and results not reflected in survey results

# Survey results

<i>Survey Categories</i>	<i>Survey Average Weight (lbs)</i>	<i>+Increase (Decrease)</i>
Average Adult Passenger Weight	195.63	Increase
Average Carry- On Bag Weight	15.72	Increase
Average Checked Bag Weight	28.81	Increase

# Survey results



# Survey Outcome

---

- Of the 15 carriers using average weight programs, all 15 carriers adjusted their weights in one or more of the weight categories by 5%-25%.

# Identify Possible Deficiencies

- Compared survey weights to the stated weights in AC 120-27C
- Survey indicates the AC 120-27C weights may need to be revised.

# Corrective Actions: Short-Term

- **By August 11, 2003, Notice 8300.112 requires all 121, 125, and 135 operators to revise their average weight program with the following criteria or complete a average weight survey.\***
    - **+10 pounds per passenger for personal items**
    - **+5 pounds to each domestic checked bag**
    - **Use actual weights for US Mail Bags & COMAT**
- \*8400.40 carriers are exempt**

# Corrective Action:

## Long-Term (6 months)

- **Revise AC 120-27C under an Aviation Rulemaking Committee (ARC).**
- **The ARC will address the following issues:**
  - **Survey average passenger, carry-on, checked baggage weights**
  - **Average weight of carry-on bags checked planeside**
  - **Seasonal operations**
  - **Time interval between average weight validations**
  - **International harmonization**
  - **Oversized bag weights**
  - **Male/Female ratios in average weight programs**